

AN ORDINANCE

AMENDING CHAPTER 21 AND CHAPTER 35 OF THE CITY CODE OF SAN ANTONIO, TEXAS BY ADDING OR AMENDING VARIOUS SECTIONS RELATING TO TREE PRESERVATION AND THE PREVENTION AND CONTROL OF OAK WILT DISEASE; REQUIRING LICENSING OF TREE MAINTENANCE PROFESSIONALS; AND PROVIDING FOR PENALTIES.

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WHEREAS, the City Council, in order to protect the health and general welfare of the City, passed and approved a tree preservation ordinance, Ordinance No. 85262, on December 5, 1996; and

WHEREAS, the City Council amended the contract of the Unified Development Code consultant, Mark White to utilize a public process to review the effectiveness of the ordinance; and

WHEREAS, five (5) public meetings were held during which numerous comments were submitted by design professionals, community members, and members of the development community relating to the tree preservation ordinance; and

WHEREAS, a report entitled "Survey and Recommendations" was distributed which explained the findings and recommendations of the meetings, as well as information relating to tree preservation ordinances and issues in Texas and throughout the nation; and

WHEREAS, the City Master Plan provides that the tree preservation ordinance shall be strengthened as needed,

NOW, THEREFORE, BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF SAN ANTONIO:

35-523 Tree Preservation

While allowing the reasonable improvement of land within the city and city's ETJ, it is stated public policy of the city to maintain, to the greatest extent possible, existing trees within the city and the ETJ, and to add to the tree population within the city and the ETJ. The planting of additional trees and preservation of existing trees in the city and the ETJ is intended to accomplish, where possible, the following objectives:

- *To preserve trees as an important public resource enhancing the quality of life and the general welfare of the city and enhancing its unique character and physical, historical and aesthetic environment.*
- *To encourage the preservation of trees for the enjoyment of future generations.*
- *To encourage the preservation of trees to provide health benefits by the cleansing and cooling of the air and contributing to psychological wellness.*
- *To encourage the preservation of trees to provide environmental elements by adding value to property, and reduction of energy costs through passive solar design utilizing trees.*
- *To encourage the preservation of trees to provide environmental elements necessary to reduce the amount of pollutants entering streams and to provide elements crucial to establishment of the local ecosystem.*
- *To provide tree preservation requirements and incentives to exceed those requirements that encourage the maximum preservation of trees.*
- *To promote and protect the health, safety and welfare of the public by creating an urban environment that is aesthetically pleasing and that promotes economic development through an enhanced quality of life.*

This Section implements the following provisions of the Master Plan:

- *Neighborhoods, Policy 3c: Continue to implement the tree preservation ordinance and strengthen as needed.*

(a) Applicability

(1) Generally

- A. The regulations contained in this division shall apply to any private property located within the city limits of the city and the ETJ of the city that is not the subject of a Permit as of the effective date of this provision.
- B. The regulations contained in this division shall apply to all public property held by or for the benefit of the city or any agency, board or commission thereof in accordance with the provisions of subsection (o) of this division.
- C. The regulations contained in this division shall regulate all activities that result or may result in the removal of Significant or Heritage trees as defined herein. Said activities include any of the following conducted on property to which the division applies:
 - 1. Industrial, commercial, office, multifamily, residential and institutional development, including all new construction and any additions that increase the total floor area of a structure by more than two thousand five hundred (2,500) square feet.
 - 2. Construction of a new parking lot larger than two thousand five hundred (2,500) square feet or expansion of an existing parking lot by more two thousand five hundred (2,500) square feet.
 - 3. Any grading, filling or clearing of land.
 - 4. Any clear, selective or individual cutting or removal of any Significant or Heritage tree as defined.
 - 5. Chemical or biological treatment of trees that may result in the death or destruction of any Significant or Heritage tree as defined.
 - 6. Trenching or excavation that may damage or destroy any Significant or Heritage tree as defined.
- D. The regulations in this Section shall apply to any projects receiving any federal, state, and/or local financial assistance.

(2) Activities Exempt

The regulations in this division shall not apply to the clearing of understory necessary to perform boundary surveying of real property or to conduct tree surveys or inventories. Clearing for surveying may not exceed a width of two (2) feet for general survey (i.e. of easement boundary, etc.) and eight (8) feet for survey of property boundary lines. Except for surveys done in

connection with residential development, no tree ten (10) inches or larger may be removed in any manner during such boundary or general surveying.

(3) Categories of Development Exempt

The provisions of this Section shall not apply to any Conservation Subdivision.

(4) Trees Exempt

This division shall not apply to:

- A. Any Significant or Heritage tree determined to be diseased, dying or dead, by the city arborist.
- B. Any Significant or Heritage tree determined to be causing a danger or be in hazardous condition as a result of a natural event such as tornado, storm, flood or other act of God that endangers the public health, welfare or safety and requires immediate removal.
- C. Trees located on property on which construction of single-family, two-family or three-family residential dwelling units has been completed.
- D. Trees located in the clear vision area, as defined in the Street Improvement Standards.
- E. Trees preventing the opening of reasonable and necessary vehicular traffic lanes in a street or alley.

The provisions contained in this section shall control in the event and to the extent they may conflict with other provisions contained in this Chapter that do not related to health and safety.

(b) Administration

The provisions of this section shall be implemented by a city arborist under the direction of the director of development services. The city arborist shall oversee regulation of the maintenance and removal of Significant or Heritage trees and shall enforce and administer the provisions of this section.

The city arborist shall work closely with all city departments and governmental entities and licensees, and franchisees thereof in order to promote and ensure the maximum protection of trees by the implementation and administration of this section. City departments with which the city arborist is authorized to interact pursuant to subsection (o) of this section include, but are not limited to the following:

- A. Planning department. Coordination of tree preservation in the review of master development plans (for phase development) and any grading, fillings and spoil activities when applicable.
- B. Development services department. Coordinate and maximize the preservation of trees through the implementation of the city landscape and streetscape standards and through the building permit application and approval process contained in this chapter.
- C. Public works department. Maximize the preservation of trees during public works projects for public improvements such as, but not limited to utility installation, street construction and maintenance, drainage construction and maintenance, grading, filling, placement of soil, etc. and coordinate any projects that modify natural drainage areas in a way that negatively affects trees on private property or public property.
- D. San Antonio Water System. Maximize the preservation of trees during capital improvement projects. The arborist shall review any policies related to trees.
- E. City public service board. Maximize the preservation of trees during capital improvement projects. The arborist shall review any policies related to trees.
- F. Parks and recreation. Maximize the preservation of trees during capital improvement projects.
- G. Any other entities which may require easements or rights-of-way shall maximize the preservation of trees during the project. The arborist shall review any policies related to trees.

(c) *Violation, enforcement and penalties*

The provisions of this Section shall be enforced as provided in Article 4, Section 35-493 of this Chapter.

(d) *Protected Tree Designations*

The Significant or Heritage tree designations establish a threshold trunk size, measured in diameter at breast height (“DBH”), for various tree species for purposes of applying the requirements of this ordinance. A Significant or Heritage tree is defined by DBH as set forth below. Significant trees of less than six (6) inches may be omitted from the Tree Survey and preserved or mitigated based on a numerical count.

(1) *Significant Trees*

A Significant tree means a tree of six (6) inches or greater DBH for all tree species except for the following species where a Significant tree means a tree with two (2) inches or greater DBH:

1. Persimmon
2. Redbud
3. Mountain Laurel
4. Condalia
5. Possum Haw (in floodplain only)
6. Crabapple (in floodplain only)

(2) Heritage Trees

A Heritage tree means a tree of twenty-four (24) inches or greater DBH for all tree species except for the following species where a Heritage tree means a tree with eight (8) inches or greater DBH:

1. Persimmon
2. Redbud
3. Mountain Laurel
4. Condalia
5. Possum Haw (in floodplain only)
6. Crabapple (in floodplain only)

(e) Minimum tree preservation requirements

(1) Generally

Table 523-1 establishes the minimum percentage of all diameter inches or percent tree canopy of Significant or Heritage trees that must be preserved or mitigated. For single family dwellings, developers and builders may elect to preserve trees at the platting or permitting stage; if a developer or builder elects to preserve at the platting stage, this method must be used throughout completion of the project.

Table 523-1		
	Single-family Dwellings	Multi-family and Non-residential uses
Significant Trees	35% within each platted lot, excluding street right of way and easements, plus each builder on a single family dwelling lot shall also be required to plant two, 2" caliper new trees, which trees shall generally be native, large canopy trees.	40% within the entire site, excluding the street rights-of-way and easements
Significant Trees under 6" DBH	35% within each platted lot, excluding the street right of way and easements OR 35% of the number of total count of all such trees	40% within the entire site, excluding street right of way and easements OR 40% of the number of total count of all such trees
Heritage Trees	100% within each platted lot	100% within the entire site
100 year flood plain(s)	80% of the trees within the flood plain, which shall not apply toward preservation requirements on the remainder of the lot	80% of the trees within the flood plain, which shall not apply toward preservation requirements on the remainder of the site
Mitigation Maximum	Up to 90% of Significant and Heritage trees may be mitigated rather than preserved	Up to 90% of Significant and Heritage trees may be mitigated rather than preserved

(2) Calculation of Preservation Ratios

All percentages relating to preservation stated within this section shall be based on the initial tree survey. Any subsequent redevelopment of property must minimally preserve the applicable percentage of the total diameter inches of protected trees as indicated by the initial tree survey.

(3) Tree Stand Delineation Alternative

As an alternative to a tree survey, a tree stand delineation may be used to meet the preservation requirements (see submittal requirements Section 35-B125). The amount of tree area(s) required to be preserved is twenty-five (25) percent. Within the tree save area, the existing understory must be included/preserved to meet the requirements of this elective option.

(4) Mitigation

Protected trees that are required to be preserved are to be mitigated at the ratio described in Table 523-2.

(5) *Diversity and Desirability*

As the particular site conditions warrant, the applicant shall make a reasonable effort to preserve a diversity of species of trees as determined by the city arborist.

(6) *Site Design*

The location of all proposed buildings and improvements shall be oriented by the applicant, to the extent the applicant determines possible, in a manner which allows for preserving of the greatest number of trees and in doing so the applicant is encouraged to design by taking into consideration the site's limitations and assets. Trees located within the existing right-of-way shall not be counted as it pertains to the minimum preservation percentage. Applicants are encouraged to preserve trees to meet the landscape and streetscape standards which could reduce or eliminate the irrigation requirements.

(7) *Rights of Way*

Unless otherwise allowed by this division, trees of a protected size or larger located within existing rights-of-way or easements may be damaged, destroyed, or removed only if prior approval is granted by the city arborist.

(8) *Trees on Public Property*

The city shall have the right to maintain trees, plants, and shrubs within the lines of all public property as may be necessary to ensure the safety, protect facilities and improvements, and maintain the health and aesthetics of such public grounds. In order to achieve the above, the city or its municipal utility entities may remove or cause or order to be removed any tree which is located on public property and determined to be in conflict with a public purpose or to be a public hazard through coordination with the city arborist.

Unless specifically authorized by the city, no person shall knowingly cut, carve, transplant, or remove any tree; attach any rope, wire, nails, advertising posters, or other contrivances to any tree; or allow any substance, solid, liquid, gas, or fire to injure any tree or portion thereof on public property.

(9) *Historic Trees*

In order to protect historic trees, as defined, the city arborist shall defer the approval of tree preservation plans to review by the director of planning who shall seek the advice of the historic design and review commission in instances where a historic tree is proposed to be removed. The commission may recommend additional replacement standards, recommend a cash payment to be deposited to the tree replacement fund to offset the cost of future tree planting on public property, or recommend that the application for permit and tree preservation plan be denied.

Provided, however that no later than thirty (30) days after the final application for removal of the historic tree was received, the director of development services shall advise the applicant by certified mail, return requested, or hand delivery of his decision. The final application will be deemed approved if not acted upon by the director of planning before the expiration of the thirty-day time period herein established. Such action may be appealed pursuant to Section 35-489 of this Chapter.

(f) Mitigation/alternative mitigation methods

Significant or Heritage trees may be removed in excess of the minimum preservation requirement contained in subsection (e) provided the excess removal is properly mitigated.

If mitigation is required to compensate for removing trees in excess of the number of diameter inches allowed to be removed within the surveyed area to be calculated for tree preservation under the minimum preservation requirements, the mitigation may be achieved in one of the ways prescribed in Table 523-2, below:

Table 523-2 Mitigation		
(A) Method	(B) Description	(C) Restrictions
1. Establishment and maintenance of new trees at the required ratio on-site	Significant 1:1 Heritage 3:1	No more than twenty-five (25) percent of the replacement trees shall be of the same species; for the purposes of mitigation.
2. Payment to the tree mitigation fund	See subsection (n) of this Section.	See subsection (n) of this Section.
3. Protection and Maintenance of smaller trees within Surveyed Area	Protection and maintenance of existing trees within the surveyed area that are smaller than the size requirements for a protected tree.	Such trees must be at least two and one-half (2 ½") inches DBH. See Column B ratios for diameter-inches required.
4. Protection and Maintenance of natural areas within the Surveyed Area	Protection and maintenance of existing natural areas, i.e., prairie, steep slope, etc.	Area(s) must contain desirable plants as determined by the city arborist and/or by Texas Parks and Wildlife Dept.

In considering a mitigation method, the city arborist may weigh the value of smaller trees, clumps of trees, and natural vegetation that could be retained to meet the requirements of this section, such as mitigation method above, or the amount of vegetation to be retained on the site and/or added according to a landscape plan to determine the extent additional trees may not be required. For these reasons, indiscriminate clearing of smaller trees and shrubs or understory is discouraged.

(g) 100 year Flood Plain(s)

Significant trees shall be preserved at eighty (80) percent preservation within the 100 year flood plains. Heritage trees shall be preserved at one hundred (100) percent preservation within the 100 year flood plains. The 100 year flood plain shall be determined by the Flood Plain Administrator. Such trees shall be mitigated as defined in Table 523-2. If trees are required to be removed by a governmental entity due to existing off site conditions, then mitigation shall not be required by the applicant. The City Arborist, the Director of Public Works, the Director of Development Services, and one representative from the Cibolo Creek watershed, the Leon Creek Coalition, the Salado Creek Foundation, the San Antonio River Oversight Committee, and the Land Heritage Institute (for the Medina River) shall agree on a standard for treatment of drainage ways, which standard shall be approved by the Urban Affairs Committee of City Council.

(h) Tree preservation incentives

An individual may apply for, and subject to verification, shall receive incentives for tree preservation as follows:

(1) Parking space reduction

Upon application and verification by the city arborist, an individual shall be entitled to a reduction in the minimum parking requirements of § 35-526 of this Code to help meet the minimum tree preservation requirements. For the purpose of providing an incentive, the said minimum parking requirements of § 35-526 of this Code may be reduced by one (1) parking space for every four (4) diameter inches of trees that have been protected or mitigated on a site. The city arborist shall issue a certificate to the appropriate city department(s) confirming that a reduction has been earned under this section. Up to fifteen (15) percent of the required spaces may be waived, however, a waiver in excess of fifteen (15) percent of the required spaces must be approved by the director of development services or his designee, and no waiver may exceed thirty (30) percent of the required spaces. A waiver of up to fifty (50) percent of the minimum parking spaces required by Table 526-3 may be granted if the plan will result in the preservation of woodlands or significant stands of trees in a natural state as in Section 35-526. If used, the incentive provided by this subsection shall control over any other conflicting provision of this Code.

(2) Sidewalks

Where the director of development services determines that preservation of trees warrants the elimination, reduction in width, or modification to the sidewalk and curb requirements in accordance with the Tree Preservation Standards, a waiver may be granted.

(3) Tree Cluster(s)

In order to emphasize the importance of preserving trees in a cluster during development, additional tree preservation credit will be given as follows:

A. Cluster(s) of three (3) or more trees less than ten (10) feet apart without existing understory will be calculated at 105% for each tree within the cluster with a minimum size of 2 ½ inch diameter.

B. Cluster(s) of three (3) or more trees less than ten (10) feet apart with existing understory will be calculated at 115% for each tree within the cluster with a minimum size of 2 ½ inch diameter.

(4) *Landscape credits*

Landscape credits may be awarded as provided in § 35-511, above.

(5) *Understory*

The city arborist, may determine that the preservation of native understory plants together with trees grouped in significant stands may result in a reduction of new plantings needed to meet the landscape requirements and/or an increase of credit given for elective points and/or the elimination of an irrigation system requirement of Section 35-511. Emphasis is on the preservation of said significant stands and accompanying native understory plants and therefore, the smaller tree diameters may be counted one for one in terms of meeting the minimum tree preservation requirements. It is at the discretion of the city arborist as to the maximum number of trees, less than the Significant tree size, that may be allowed to be used for obtaining additional landscape points under this incentive.

(6) *Minimum Lot Size and Setbacks*

The Board of Adjustment may waive the minimum lot size and setback requirements of the applicable zoning district for an individual lot or lots where the Applicant demonstrates the following:

- A. Compliance with the minimum lot size or setback requirement is needed to preserve a Significant Tree or Heritage Tree; and
- B. If the Tree Permit application is pursuant to a proposed subdivision plat, the average lot size of the proposed subdivision will equal or exceed that of the applicable zoning district; and
- C. The public purpose involved in protecting the tree exceeds the public purpose of complying with minimum lot size or setback requirements; and
- D. The resulting lot sizes or setbacks do not violate the Master Plan or the applicable Neighborhood Plan.

(7) *State Certification in Lieu of Compliance*

The city arborist shall assist those who wish a site certified under the Texas Parks and Wildlife, Texas Wildscape Program in lieu of meeting city requirements in this division as long as twenty (20) percent of existing trees on site are preserved.


(i) Root protection zone


(1) Root Protection Zone

A root protection zone must be established around the trunk of each tree preserved or mitigation tree. For multi-family and non-residential construction the root protection zone shall be an area defined by an average radius extending outward from the trunk of the tree a distance of one (1) linear foot for each inch (DBH). A minimum of 50% of the root protection zone area shall be preserved at natural grade, with natural groundcover. No cutting, filling, trenching, root disturbance, soil disturbance, or construction impacts shall occur closer to the trunk than one-half (1/2) the root protection zone radius. Filling shall be allowed to accomplish water conservation goals established by the City of San Antonio or by a public utility. Native understory vegetation within the root protection zone shall be preserved, however this requirement does not apply to root protection zone areas that have been landscaped using native, drought tolerant plants. The root protection zone may be shifted and clustered as long as there is no construction closer to the trunk than one-half (1/2) the root protection zone radius. The construction of sidewalks shall be allowed in the root protection zone, as long as excavation does not exceed three (3) inches.

The area contained within a root protection zone required under this subsection must be left in a pervious condition after construction and development are completed unless approved alternative construction methods are used. The arborist shall establish a written set of technical criteria on which such approval shall be based. During construction activity on the site, at least six-inch layer of coarse mulch shall be placed and maintained over the root protection zone. The impervious cover may encroach within the root protection zone if said encroachment is approved by the city arborist.

(2) Warranty

In lieu of establishing root protection zone(s) as prescribed in Section 35-523 (i) or adhering to alternate construction methods as approved by the city arborist, a developer or property owner may choose to provide a Tree Preservation Warranty for multi-family and non-residential construction only. In the event a developer or property owner chooses to provide a Tree Preservation Warranty as provided for herein, the owner of the Property must provide a Tree Preservation Warranty to the City arborist which shall obligate the then owner of the Property to replace any tree (or trees) reflected on the tree survey and which are the subject of the warranty. The term of the warranty shall be five (5) years from the date that a building permit is filed for building construction projects or five (5) years from the date construction is commenced for infrastructure improvements related to development projects. Each tree that is covered by a Tree Preservation Warranty must be identified on a tree survey prepared in accordance with section 35-B123(c)(1)A and submitted with the Tree Preservation Warranty.  If any tree required to be preserved and which is the subject of a Tree Preservation Warranty shall die during the term of the Tree Preservation Warranty, the tree shall be replaced in accordance with the mitigation

provisions of Subsection 35-523(f).  replacement trees shall be planted in accordance with the standards set forth in section 35-523(l). The City may require such Owner to replace a tree (or trees) that has died at any time during the term of the Tree Preservation Warranty, and, if such Owner fails to replace the tree within 90 days of the city's written request to replace same, the city at its sole option may refuse to issue any new building permits, accept any development application, or accept any infrastructure improvements from such owner. Nothing in this subsection shall exclude any and all remedies otherwise provided by law.

The Tree Preservation Warranty shall be filed in the records of the Development Services Department of the City. The seller of property subject to a Tree Preservation Warranty shall provide a copy of the warranty and attached tree survey to prospective buyers.

(j) Tree protection during construction

(1) Generally

It is the applicant's responsibility to insure that all parts of the tree preservation plan are transferred to each appropriate person concerned with the development project.

(2) Protection Barrier

Except for single family residential construction, a protection barrier shall be erected at the edge of the root protection zone for all trees, understory and/or natural areas to be preserved to meet the requirements of the Tree Preservation, Landscape and/or Streetscape standards. The barrier shall be in place before any site work is initiated and maintained throughout the construction process. However, on one side of the tree the protective barrier can be erected a minimum distance of sixty (60) inches from the trunk(s) of individual Significant, Heritage or mitigation trees or islands of such trees and understory and maintained until construction is completed. This protective barrier may be comprised of snow fencing, vinyl construction fencing, chain link, geotextile material or other similar sturdy material. During construction, no excess soil, additional fill, equipment, liquids or construction debris shall be placed inside the protective barrier nor shall any soil be removed within the barrier.

(3) Grading

The proposed finished grade within the root protection zone of any tree to be preserved shall not be raised or lowered more than three (3) inches. Approved welling methods for tree preservation may be used within the root protection zone. Other welling and/or retaining methods may be used to protect and/or provide lateral support to the area outside the root protection zone.

(4) Branch/Root Pruning and Wounded Trees

All broken branches and exposed roots two (2) inches in diameter or greater of Significant, Heritage or mitigation trees shall be cut cleanly. In the case of oak species, in order to prevent infection by oak wilt spores, wounds must be painted with an acceptable wound dressing within thirty (30) minutes.

(5) Equipment/Vehicle Storage and Parking Areas

Prior to construction or land development, the developer or builder shall establish designated parking areas for the parking and maintenance of all vehicles, trailers, construction equipment, and related items, as well as stockpile areas for the storage of construction supplies and materials. The location and dimensions of said designated areas shall be clearly identified on construction and site plans and at the construction site.

(6) Boring of Utilities

- A. For purposes of this subsection, “boring” means the practice of tunneling below the effective root system of a tree for the purpose of running underground utilities.
- B. Boring is permitted, but not required, under protected trees where needed to provide underground utility access. The minimum length of the bore shall be the width of the tree's canopy. The minimum depth is twenty-four (24) inches.

(7) Tree Protection Details

Tree protection notes and details shall be included on subdivision plans, tree preservation plans and/or landscape plans. The applicant shall also include tree protection notes and details with the bid documents given to the contractor.

(k) General maintenance

Significant, Heritage, or mitigation trees must be maintained in a healthy condition at all times. The property owner is responsible for irrigating, fertilizing, pruning and other maintenance of all trees as needed. Except for residential development, mitigation trees that are planted on the property and that die within twelve (12) months of final inspection are subject to the mitigation requirements set forth in subsection (e) at a ratio of one (1) inch mitigation for every one (1) inch of a Significant, Heritage, or mitigation tree(s) that dies. However, a Significant or Heritage or mitigation tree that dies from other than natural causes shall be mitigated at a ratio as defined in Table 523-2. Any tree that dies must be replaced with another living tree of the same category type or better within ninety (90) days after notification by the city. The building official may extend this time period up to an additional ninety (90) days due to weather considerations. If the plants have not been replaced after appropriate notification and/or extension, the property owner shall be in violation of this section. If a public utility disturbs trees, it shall make every reasonable effort to preserve the trees and return them to their prior location and condition after the utility work is completed. If nonetheless, trees die, replacement is not the responsibility of the property owner if the death or destruction of the trees is due to the action of a public utility.

(l) General planting standards

- (1) Mitigation or replacement trees required by this section must have a minimum caliper of two and one-half (2 1/2) inches measured six (6) inches above grade at the time of installation and, shall be planted in a pervious area of at least one hundred and sixty-two (162) square feet per tree.
- (2) No artificial plant materials may be used to satisfy the requirements of this section.
- (3) For single family residential construction, the two trees required to be planted per residential lot shall be Class I trees, of two (2) inch caliper, and shall be a species that matures to a minimum height of thirty (30) feet (Appendix E) unless there is a conflict with overhead utilities where the trunk would be within twelve (12) feet of overhead utilities. In such incidences the tree will be from the small tree species as listed in Appendix E.
- (4) Plant materials required by this section must comply with the following minimum size requirements at the time of installation.
 - A. In satisfying the requirements of this section, the use of mulch material shall be provided at the time of planting.
 - B. Each replacement tree must be planted at least thirty (30) inches away from any impervious surface.
 - C. Plant areas must be protected from vehicular traffic through the use of concrete curbs, wheel stops or other permanent barriers.
- (5) Transplanting existing trees shall be considered an acceptable method for preserving a tree if:
 - A. The tree is a Significant or Heritage tree; and
 - B. The tree is transplanted on the same lot, parcel, or development site; and
 - C. The applicant provides a feasibility report prepared by a Certified Arborist or Landscape Architect which describes the following:
 1. Digging method;
 2. Relocation sites;
 3. Method of transport;
 4. Time of year transplanting will take place;
 5. Storage methods (if any); and,
 6. Maintenance programs before, during, and after transplanting.
 - D. The Applicant shall comply with the requirements of the feasibility report, which shall be considered a condition of the Tree Permit.

(m) Variance procedure

(1) Variances

Variances to the terms and requirements of this division may be granted by the city arborist where a literal enforcement of the provisions of this division will result in an unnecessary hardship. No variance may be granted unless:

- A. Such variance will not be contrary to public interest;
- B. Such variance will be in harmony with the spirit and purpose of this division;
- C. The variance will not substantially weaken the general purposes of this division or the regulations herein established for the protection of trees; and
- D. The variance granted is limited in scope of relief to only that which is necessary to relieve the hardship condition.

(2) Request for variance

A person who feels they qualify for a variance, under the conditions outlined in subsection (a) above, from the literal application of this division to their property may request a variance from such application of one (1) or more of the provisions of this division. All requests for variances shall be made in writing to the city arborist, and shall include:

- A. The subject of the requested variance; and
- B. The justification for granting a variance.

(3) Burden

- A. The party requesting a variance has the burden of demonstrating that sufficient evidence exists for the granting of a variance to application of this division. The city arborist shall consider and provide a written response to all such requests for variances as quickly as possible but not more than thirty (30) days from the date a valid request for variance is received. The response shall be served by certified mail, return receipt requested, or by hand delivery.
- B. *If granted.* If a variance is granted as requested, or with modification, the recipient of the variance may develop their property according to all applicable provisions of this division, to the extent such provisions have not been waived or modified by the variance.

(4) Appeal

Any person who properly requests a variance pursuant to this section and objects to the decision of the city arborist which denies all or part of the relief requested may appeal such denial to the director of development services or his designee by filing a request for appeal within ten (10) working days from the date notice of denial is received by the requesting party. All such appeals shall be made in writing to the office of the director of development services and shall include all pertinent information which the person requesting the appeal wishes to be considered. The director of development services may require additional information from or request a meeting with the person making the appeal. The written decision of the director of development services, or authorized designee, on the appeal shall be rendered within fifteen (15) working days and shall be delivered to the appealing party by certified mail, return requested, or by hand delivery. If the director of development services or authorized designee fails to render an opinion on the appeal within the fifteen-day period, the relief requested in the appeal shall be granted.

(5) Planning commission

- A. If the director of development services denies all or part of the relief requested in an appeal, the aggrieved party may appeal to planning commission by filing a notice of appeal with the office of the city clerk no later than the tenth working day following the party's receipt of the written decision of the director of development services. A true and correct copy of the notice of final appeal must also be filed with the office of the director of development services who upon receipt of such notice, shall immediately transfer copies of all documents and information relevant to the appeal to the executive secretary to the planning commission. The executive secretary of the planning commission shall schedule the hearing of the appeal at the earliest available regularly scheduled meeting of the planning commission which will allow compliance with the requirements of the Texas Open Meetings Act.
- B. A decision of the planning commission that is adverse to the applicant shall be appealable by the applicant to the city council for final action by filing a notice of final appeal with the office of the city clerk no later than the tenth working day following the party's receipt of the written decision of the planning commission. The city clerk shall schedule the hearing of final appeal at the next available regularly scheduled meeting of the city council which will allow compliance with the requirements of the Texas Open Meetings Act.
- C. Where this division requires either the city or applicant to respond, or take other action, within a specific number of days, such calculation shall begin on the first working day after the date of receipt of the information that necessitated response or action.

(n) Tree mitigation fund

(1) Fund Established

The director of finance is hereby directed to establish a dedicated account to be entitled tree mitigation fund (hereinafter the "fund").

(2) Penalties

§ 35-493 of this Chapter provides for sections imposing civil penalties in addition to criminal penalties. Civil penalties collected pursuant to such section shall be recorded in the fund created pursuant to this section, unless expressly prohibited by law. Likewise, all funds received from the payment of mitigation fees pursuant to subsection (f) shall be recorded in the fund.

(3) Use of funds

The funds collected from civil penalties and mitigation fees in the fund shall be utilized to pay for the planting and maintenance of trees, the funding of tree preservation and planting programs to be administered by the development services department. The development services director shall seek the advice of the open space advisory board in regard to the selection of projects to be funded. A portion of the fund may be used, on an annual basis, to fund activities directed towards educating the public on the importance of trees in the environment, ecological issues and pollution prevention.

(4) Funds to be kept separate

The balance within the fund shall be recorded and accounted for in a manner that distinguishes them from other general funds of the city and shall be disbursed in a manner consistent with the purposes for which this fund has been established. The balance of this fund shall not be transferred to the general fund at the end of each budget year, but rather, the balance remaining in the fund at the close of the city's fiscal year shall roll over and become the beginning balance for the next fiscal year.

(o) Public projects

Municipal and utility entities shall obtain a Tree Permit before any vegetation is removed or new construction activity takes place. Special attention will be given to the preservation of trees in public rights-of-way that are to help satisfy the objectives of the Streetscape Planting Standards of this Article (§ 35-512). The city arborist shall approve an application for the reasonable removal of a protected tree in connection with construction, maintenance or repair of public facilities in or above a public street, alley, rights-of-way, easement or other public land.

(1) Generally

A minimum of twenty-five (25) percent of all diameter inches of protected trees within the project boundary/limits must be preserved.

(2) Calculations of Preservation Ratios

All percentage relating to preservation stated within this section shall be based the initial tree survey. Any subsequent redevelopment of public property must minimally preserve the applicable percentage of the total diameter inches of protected trees as indicated in the initial tree survey.

(3) *Tree Retention Ratio*

A minimum of ten (10) percent of the total diameter inches within the surveyed area must be retained in their original location when possible. Removal of additional trees, up to the percentage prescribed in this section, requires mitigation (see subsection (f) above).

(4) *Design, Diversity and Desirability*

The location of all improvements shall be orientated by the applicant, to the extent the applicant determines possible, in a manner which allows for the preserving of the greatest number of trees and in doing so is encouraged to acquire rights-of-way in such a manner. Applicants are also encouraged to preserve trees to meet the landscape and streetscape standards. Also as the particular site conditions warrant, the applicant shall preserve a diversity of species.

35-524 Woodlands Preservation Standards

The purpose of this Section is to encourage contiguous stands of trees. The City hereby finds and determines that preserving contiguous stands of trees provides significant benefits exceeding the preservation of individual trees, including:

- *Increased survivability rates.*
- *More effective stormwater management.*
- *More effective protection of air quality.*
- *Preservation of biodiversity and a variety of plant species, including understory.*

This section establishes a minimum size for tree stands in order to ensure that they perform a significant biological function and to provide certainty in the approval process.

The City also finds and determines that delineating tree stands early in the process provides an economic advantage to the applicant. By designating trees early in the approval process, site infrastructure and lots can be planned around trees. By contrast, providing a tree survey late in the approval process, as is permitted by § 35-523, can involve unanticipated expenses and delay that could be resolved by early coordination with the City. Accordingly, this Section provides an optional process whereby applicants are encouraged to delineate woodlands early in the approval process, and are thereby excused from the individual tree surveys and construction measures required by § 35-523.

This Section implements the following provisions of the Master Plan:

Neighborhoods Element of the Master Plan, Policy 3c: Continue to implement the tree preservation ordinance and strengthen as needed.

(a) Applicability

The provisions of this Section provide an alternate method of approval to Section 35-523 and apply to any Application for Development Approval subject to an approved Stand Delineation, as described in subsection (d), below, and Appendix B to this Code. If a Stand Delineation is approved as provided herein, the tree protection requirements of Section 35-523, above, shall not apply, provided however, Heritage Trees shall be protected as provided in Section 35-523 notwithstanding approval of a Stand Delineation.

(b) Administration

See Section 35-478 of this Chapter.

(c) Violation, Enforcement and Penalties

See Section 35-493 of this Chapter.

(d) Stand Delineation

The Stand Delineation shall be used during the preliminary review process to determine the most suitable and practical areas for Woodland conservation. A Stand Delineation as provided by this section shall not substitute for the delineation of Protected Trees if there is no Woodland on the site. See Section 35-478 for Stand Delineation approval procedures, and Appendix B, Section 35-B125 for Stand Delineation submittal requirements.

(e) Preservation Ratios

- (1) The following Preservation Ratios are established for purposes of this Section:

Proposed Land Use	Preservation Ratio
Single-Family Residential, not more than two (2) dwelling units per acre	25%
Single-Family Residential, greater than two (2) dwelling units per acre	20%
Multi-family and Non-residential uses	15%

- (2) The applicant shall comply with the Preservation Ratio by using one (1) of the following alternatives:

A. Preserving an area of continuous canopy coverage equal to the Net Area of the site multiplied by the applicable Preservation Ratio. Such areas shall be designated as “Tree Save Areas.”

B. Providing Reforestation as prescribed in subsection (f), below.

- (3) The following areas shall be considered priority for retention and protection, and shall be included in the Tree Save Area:

A. Trees, shrubs, and plants located in sensitive areas including 100-year floodplains, Streamside Management Zones, steep slopes, and critical wildlife habitat;

B. Contiguous Woodland that connects the largest undeveloped or most vegetated tracts of land within and adjacent to the site;

- C. Trees, shrubs, or plants identified on the list of rare, threatened, and endangered species of the U.S. Fish and Wildlife Service or Texas Parks and Wildlife Department;
- D. Trees that are part of a historic site or associated with a historic structure or designated by the Texas Forest Service on the Texas Big Tree Registry; and
- E. Trees having a diameter measured at 4.5 feet above the ground of 30 inches or 75% of the diameter of the current National Champion Tree of that species as listed on the Texas Big Tree Registry maintained by the Texas Forest Service.

(4). The Applicant may include up to fifty percent (50%) of areas designated as Natural Areas, Greenways, or Greenbelts pursuant to the Parks and Open Space Standards (§ 35-503 of this Chapter) within the Tree Save Area. Such areas shall conform to the requirements of this Section.

(f) Mitigation Ratios

(1) Reforestation where used pursuant to subsection (e)(2) shall conform to the following:

Area Removed	Reforestation Ratio (percentage of acreage removed)
Less than the Tree Save Area	25%
At or more than the Tree Save Area	200%

[Commentary: An Applicant proposing a single-family development with six (6) dwelling units per acre has a 100-acre site with 40 acres of Woodlands. The mitigation ratio is as follows:

Tree Save Area (TSA) = 100 x 20% = 20 acres
Below TSA = 20 acres x 25% = 5 acres, plus
At or above TSA = 20 acres x 200% = 40 acres
Total Reforestation required = 40 + 5 = 45 acres]

(2) Each acre of Woodland retained on the net tract area above the applicable Preservation Ratio shall be credited against the total number of acres required to be reforested under subsection (1) of this subsection.

(3) The reforestation requirements under this section shall be accomplished within 1 year or 2 growing seasons after completion of the development project.

(4) Reforestation shall occur on-site except where:

- A. Off-site reforestation occurs within the same watershed or in accordance with a master plan where the applicant has demonstrated that no reasonable on-site alternative exists, or:
- B. Any on-site priority areas for reforestation have been planted in accordance with subsection (1) of this section; or
- C. The city has, by ordinance, designated woodland mitigation banks.

(5) The following shall be considered priority for forestation or reforestation:

- A. Establish or enhance Woodlands as buffers within Streamside Management Zones;
- B. Establish or increase existing Woodland corridors to connect existing Woodlands within or adjacent to the site. Where practical, Woodland corridors should be a minimum of 300 feet in width in order to facilitate wildlife movement;
- C. Establish or enhance Woodland buffers adjacent to critical wildlife habitat zones where appropriate;
- D. Establish or enhance Woodlands in 100-year floodplains;
- E. Establish plantings to stabilize slopes of 25% or greater and slopes of 15% or greater which include the following soils as described in the Soils Survey: Austin Silty Clay, bracket clay loam, Brackett-Austin complex (Austin only), Gullied land, Houston clay, Houston-Sumter clays, Houston Black clay, Houston Black gravelly clay, San Antonio clay loam, Venus loam, Venus clay loam, Webb fine sandy loam, or Webb soils. Such areas may include the slopes of ravines or other natural depressions;
- F. Establish buffers adjacent to areas of differing land use where appropriate, or adjacent to highways or utility rights-of-way; and
- G. Establish Woodlands adjacent to existing Woodlands so as to increase the overall area of contiguous Woodland, when appropriate.

(g) Tree Protection During Construction

Woodlands within Tree Save Areas shall be protected as follows:

- (1) A protective barrier must be erected around the perimeter of each Tree Save Area to be preserved and maintained until construction is completed.

(2) During construction, no excess soil, additional fill, equipment, liquids, or construction debris shall be placed inside the protective barrier nor shall any soil be removed from within the barrier.

(3) The proposed finished grade and elevation of land within six (6) feet of a Tree Save Area to be preserved shall not be raised or lowered more than three (3) inches unless compensated for by welling or retaining methods.

(h) Street and Utility Crossings

In order to permit limited crossings of the tree stand by roads and utilities in order to provide site access and to avoid creating a disincentive to using the tree stand delineation procedure, the following standards shall apply:

(1) Streets shall conform to the design standards for an “Access to Conservation Subdivision,” as prescribed in the Transportation Standards of this Chapter. The street right-of-way shall not exceed thirty-four (34) feet, and the pavement width shall not exceed twenty-four (24) feet.

(2) Streets and utilities shall be located within the same right-of-way. Utilities shall not cross a Woodland subject to a Stand Delineation outside of the street right-of-way.

(3) Streets shall cross in a manner to minimize impact to trees and natural areas.

(4) Streets shall not be located on soils subject to erosion.

35-477 *Tree Permits*

(a) *Applicability*

The provisions of this section apply to any activity subject to the Tree Preservation Standards.

(b) *Initiation*

(1) *Application to City Arborist*

A valid application for permit must be filed with and approved by the city arborist before:

- A. Mitigating, removing, or destroying any Significant or Heritage trees that are required to be counted for calculating minimum tree preservation percentages as provided in the Tree Preservation Standards; or
- B. Any Person conducts a regulated activity, as defined in subsection (a) of §35-523, on property subject to this Section that may result in the removal or destruction of any such tree.

(2) *Affidavit*

In lieu of a Tree Preservation Plan, an applicant may submit a notarized Tree Affidavit with fees and required information verifying that no Significant or Heritage trees required to be counted for calculating minimum tree preservation requirements will be damaged or removed as a result of the application or receipt of the approval requested.

(3) *Single-Family Residential Developments*

At the platting or subdivision review, an application for a Tree Permit shall include a tree preservation plan. See Section 35-B123.

(4) *Combined Landscape Plan & Tree Survey*

The landscape plan (Section 35-476) and/or the streetscape plan (Section 35-512) may be combined with a tree preservation plan. A combined plan may be submitted at the discretion of the applicant and must include all the submittal requirements required by each plan.

(5) *Educational Seminars and Pre-application Meetings*

- A. Applicants are encouraged, but not required, to attend educational seminars conducted by the city arborist and/or establish pre-application conferences as provided by this subsection.

B. Applicants are encouraged, but not required, to request a preliminary plan meeting for a proposed project to determine the specific requirements and to maximize use of preserved trees and understory to meet the Tree Preservation, Landscape and Streetscape standards.

C. Prior to the commencement of any activities requiring a Tree Permit, the Applicant may request a pre-construction conference with the City Arborist in order to review procedures for protection and management of all Significant, Heritage or mitigation trees.

(c) *Completeness Review.*

The City Arborist shall review the application for a tree preservation permit for completeness within fifteen (15) days. The Appellate Agency for purposes of completeness review (see § 35-402(c) of this Chapter) shall be the Planning Commission.

(d) *Decision.*

(1) *Generally*

The tree permit application and tree preservation plan technical review shall be completed by the city arborist within thirty (30) days. If the city arborist finds that the work described in the application for a permit and the plans and other data conforms to the requirements of the Tree Preservation Standards and that the fees have been paid by the applicant, the city arborist shall issue a tree removal permit to the applicant.

(e) *Type of Hearing*

The Application for a Tree Preservation Permit shall be processed as a ministerial permit pursuant to § 35-401. A public hearing is not required.

(f) *Approval Criteria.*

A Tree Preservation Permit shall comply with the Tree Preservation Standards, § 35-523 of this Chapter.

(g) *Subsequent Applications.*

Not applicable.

(h) *Amendments*

Notification and approval of the city arborist are required if changes need to be made to an approved tree preservation plan. Approval of the changes must be received from the city arborist, in writing, before commencement of any work that is the subject of the change or field adjustment.

(i) Scope Of Approval.

A tree preservation permit shall remain valid for the longer of:

1. The period of validity of the permit or authorization that triggered the requirement for obtaining the tree preservation permit (i.e. building permit, plat, etc.); or
2. One hundred eighty (180) days from the date of issuance if the Tree Permit was obtained solely for the removal of trees.

(j) Recording Procedures

It shall be the responsibility of the permit holder to maintain a copy of the Tree Permit, the data and drawings required by this section, and the conditions of approval imposed by the city arborist readily available at the site at all times during which the authorized work is in progress.

35-478 *Woodlands Preservation*

(a) *Applicability*

The provisions of this section apply to any application for development approval in which the applicant elects to utilize the Woodlands Preservation Plan option as an alternative method to obtain a Tree Permit.

(b) *Initiation*

Where the applicant elects to provide a Woodlands Preservation Plan:

- (1) The Woodlands Preservation Plan shall be filed with the Master Site Plan, if required; the application for a letter of certification for a subdivision plat; or the application for approval of a building permit if no subdivision plat or site plan is required.
- (2) The Woodlands Preservation Plan shall be approved prior to mitigating, removing, or destroying any Tree within the designated Tree Stand Delineation area.
- (3) The landscape plan required by § 35-476 may be combined with the Woodlands Preservation Plan required by this Section at the discretion of the applicant. When a combined plan is submitted it shall be sufficient for satisfying the requirements of both Section 35-476 and this section.
- (4) An affidavit shall not be filed in lieu of a Woodlands Preservation Plan.

(c) *Review*

The Woodlands Preservation Plan shall include the information required by Appendix B to this Chapter. The City Arborist shall review the Woodlands Preservation Plan within fifteen (15) days.

(d) *Decision*

(1) *Generally*

If a Woodlands Preservation Plan is submitted to meet the requirements of the Woodlands Preservation Standards, it shall be reviewed by the city arborist for compliance within twenty (20) days. If the city arborist finds that the work described in the application for a permit and the plans and other data conform to the requirements of this section and that the fees have been paid by the applicant, the city arborist shall approve the Woodlands Preservation Plan.

(2) *Combined Landscaping Plan and Woodlands Preservation Plan*

If the landscaping plan and the Woodlands Preservation Plan are combined, the building official responsible for the review and approval of the landscape requirements of § 35-476 shall also review and approve those portions of the application relating to the Landscaping and Streetscaping Standards. All items identified in the data and drawings used in combined plans shall clearly indicate whether they are to be applied to satisfy the requirements of this section or § 35-476 (landscaping), or if they are intended to satisfy the requirements of both sections.

(e) *Type of Hearing*

The Application for a Tree Permit shall be processed as a ministerial permit pursuant to Section 35-401. A public hearing is not required.

(f) *Approval Criteria*

A Woodlands Preservation Plan submitted for meeting the requirements of the Woodlands Preservation Standards shall comply with those standards set forth in Section 35-524.

(g) *Subsequent Applications*

Not applicable.

(h) *Amendments*

Notification and approval of the city arborist are required if changes need to be made to an approved Woodlands Preservation Plan. Approval of the changes must be received from the city arborist, in writing, before commencement of any work that is the subject of the change or field adjustment.

(i) *Scope Of Approval*

A Woodlands Preservation Plan shall remain valid for the period of validity of the permit or authorization that triggered the requirement for obtaining the Tree Permit (i.e. Master Site Plan, building permit, plat, etc.).

(j) *Recording Procedures*

It shall be the responsibility of the permit holder to maintain a copy of the approved Woodlands Preservation Plan, the data and drawings required by this section, and the conditions of approval imposed by the city arborist readily available at the project site at all times during which the authorized work is in progress.

35-493 *Violations of Tree Preservation Standards*

(a) *Inside city limits.*

(1) *Violation Defined*

It shall be a violation of this division for any person to intentionally or knowingly remove or destroy, or allow the removal or destruction of a Significant or Heritage tree located on any property to which this chapter applies, or for any person to knowingly or intentionally perform any regulated activity in a manner that does not conform to the requirements of this chapter. Any act or omission contrary to the requirements or directives of this chapter, or any breach of any duty imposed by this chapter shall constitute a violation hereof. In addition to enforcement by the city arborist, this section shall be enforceable by and pursuant to the authority provided in Section 35-491 of this chapter.

(2) *Penalty*

Any person who commits a violation of this chapter shall be subject to a civil penalty of up to one thousand dollars (\$1,000.00) per violation or a criminal penalty of up to two hundred dollars (\$200.00) per violation per day and may be required to attend one or more training seminars. For the purpose of calculating penalties, each day on which a violation is found to exist shall constitute a separate and sanctionable offense.

(b) *Outside city limits.*

Whenever a violation of this chapter is believed to have occurred or to be occurring outside the corporate limits of the city but within the city's ETJ, criminal penalties shall not be sought, however, enforcement against such violations is hereby authorized pursuant to and under the authority granted by V.T.C.A., Texas Local Government Code, § 212.001, et. seq.

Appendix A: Definitions & Rules Of Interpretation

Arborist

See “Certified Arborist.”

Buffer zone

The area on a commercial lot located between the rear of the commercial building(s) and the rear lot line of the property.

Building official

The director of development services or his designated representative.

Caliper

The average cross-sectional measurement of the trunk of a newly planted tree at six (6) inches above grade if the resulting measurement does not exceed four (4) inches, and twelve (12) inches above grade if the resulting measurement exceeds four (4) inches.

Certified arborist

An individual who has a current and valid designation of “ISA Certified Arborist” by the International Society of Arboriculture.

City arborist

An individual employed by the city who is responsible for the administration and overseeing of the Tree Preservation Standards and Woodland Preservation Standards. The individual shall have appropriate educational experience, credentials and work experience as well as practical experience that qualify the individual for performance of his or her necessary responsibilities.

Class I specie

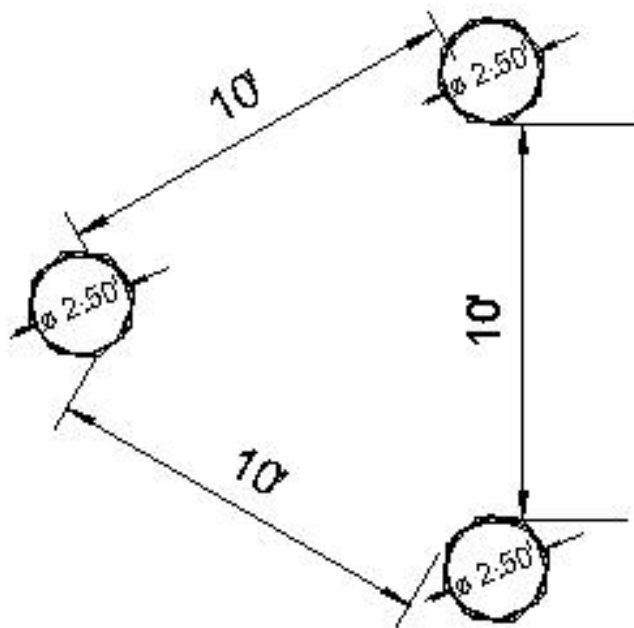
A tree specie that lives for a relatively long time, is drought tolerant, has minimum pest problems, provides wildlife habitat, and is very adapted to the area’s soil, climate conditions.

Clear vision area

The triangular area adjacent to the intersection of any street within which no obstruction may be placed which would block the sight lines for vehicular traffic. The triangle is established in accordance with section 35-506(d)(5) of this chapter.

Cluster

A grouping of at least three (3) trees, of two and one-half (2-½) inches of caliper or greater in size, and with trunks spaced at no greater than ten-foot intervals.



Critical wildlife habitat

Land on which the landowner preserves trees so as to provide at least three of the following benefits for an animal or plant that is listed as endangered or threatened under the Endangered Species Act of 1973 (16 U.S.C. §1531 et seq.) and its subsequent amendments or as endangered under Parks and Wildlife Code, § 68.002:

- habitat control;
- erosion control;
- predator control;
- providing supplemental supplies of water;
- providing supplemental supplies of food;
- providing shelters; or
- making of census counts to determine population.

[Commentary: See 4 TAC § 215.1.]

Crown

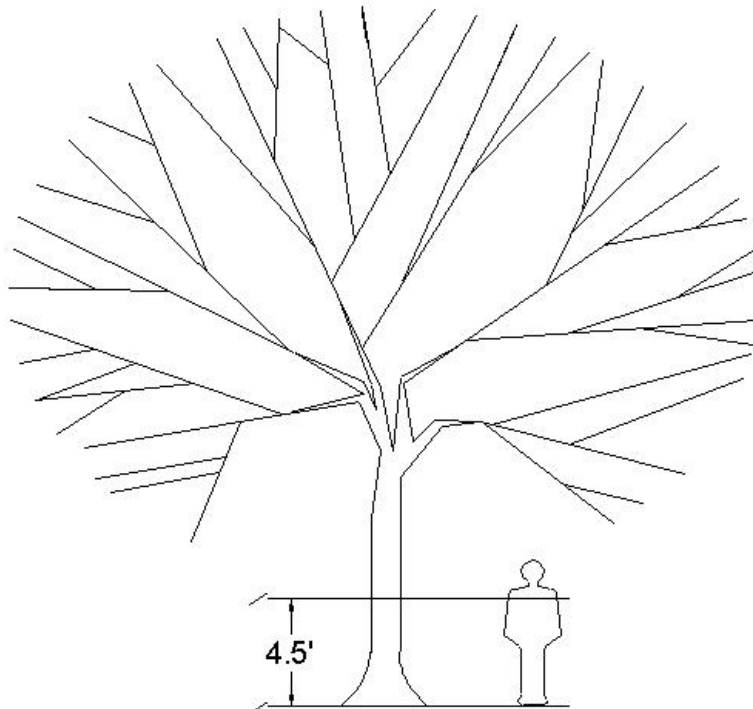
That portion of a tree comprised of its branches.

Diameter breast height (DBH) or diameter inches

The average cross-sectional measurement of the trunk of an existing tree at four and one-half (4 1/2) feet above grade. If the tree is on a slope, it shall be measured from the high side of the slope. Newly planted trees shall be measured six (6) inches above grade. For multi-trunk

species, this measurement will be based on the measured diameter of the main trunk taken four and one-half (4½) feet above grade together with one-half (½) of the diameter of the remaining trunks measured at the same height.

Diameter at Breast Height (DBH)
= diameter measured 4.5 feet
above grade



Dripline

A vertical line run through the outermost portion of the crown of a tree and extending to the ground.

Ephemeral stream

A stream or drain that flows only during and for short periods following precipitation and flows in low areas that may or may not have a well-defined channel.

Erodible soils

Soils rated as Austin Silty Clay, bracket clay loam, Brackett-Austin complex (Austin only), Gullied land, Houston clay, Houston-Sumter clays, Houston Black clay, Houston Black gravelly clay, San Antonio clay loam, Venus loam, Venus clay loam, Webb fine sandy loam, Webb soils in the Soil Survey.

Heritage tree

As described in 35-523(d).

Historic tree

A tree that has been officially found by the San Antonio City Council to be of a character (age, size, species or historic association), and/or to have had a role in local, state or federal historical events that warrant its protection or a Significant or Heritage tree within a historical district.

Intermittent stream

A stream that flows only during wet periods of the year (or 30-90% of the time) and flows in a continuous, well-defined channel.

Large tree

A tree of a species which normally reaches a height of forty (40) feet or more upon maturity.

Landscape architect

An individual currently registered to practice landscape architecture in the State of Texas, as evidenced by a valid certificate of registration issued by the Texas Board of Architectural Examiners.

Linear project

A project whose configuration is elongated with nearly parallel sides and used to transport a utility product or public service not otherwise contained in an application for subdivision, such as electricity, gas, water, sewer, communications, trains, and vehicles. Linear projects may traverse fee simple properties through defined boundaries or through easement rights.

Medium tree

A tree species which normally grows to a height between twenty-five and forty feet.

Mitigation tree

A tree used for the purpose of mitigating the destruction or removal of a protected or heritage tree pursuant to the requirements of the Tree Preservation Standards. A mitigation tree must have a caliper of at least two and one-half (2 1/2) inches

Multi-trunk tree

A tree having two (2) or more main trunks arising from the root collar or from the main trunk and measured for DBH by adding the entire DBH of the largest trunk to the sum of the remaining trunks at one half of their DBH.

Natural area

Natural areas are areas which contain a diverse and complex assortment of endemic (native to the area) plants (trees, shrubs, wildflowers, forbes and grasses) and void of invasive plant species.

Natural regeneration

The natural establishment of trees and other vegetation with at least 400 woody, free-to-grow seedlings per acre, which are capable of reaching a height of at least 20 feet at maturity.

Net area

A. Within the context of the Woodlands Preservation Standards, net area means: (1) in non-linear project areas, the total area of a site less that area where tree removal is restricted by another local ordinance or program, including but not limited to, the Area of Special Flood Hazard and Wetlands; or (2) for a linear project area, the area of a right-of-way width, new access roads and storage. Parks and Open Space may be included in the Net Area where permitted by the Woodland Preservation Standards.

B. Within the context of a Master Development Plan, net area shall mean total acreage within a Master Development Plan less the area within the 100-year floodplain and the area dedicated to conservation easement, natural area (such as greenbelt) and parks.

Perennial stream

A stream that flows throughout a majority of the year (or greater than 90% of the time) and flows in a well-defined channel.

Preserve

As used in the Tree Preservation Standards, to “preserve” a tree means to retain the tree in its natural state, including a Root Protection Zone and requirements for tree protection during construction, and general maintenance.

Protected tree

A Significant or Heritage tree as described in 35-523(d).

Reforestation

The creation of a biological community dominated by trees and other woody plants containing at least 100 trees per acre with at least 50% of those trees having the potential of attaining a 2 inch or greater diameter measured at 4.5 feet above the ground, within 7 years. "Reforestation" includes landscaping of areas under an approved landscaping plan that establishes a Woodland that is at least 35 feet wide and covering 2,500 square feet of area. "Reforestation" for a linear project which involves overhead transmission lines may consist of a biological community dominated by trees and woody shrubs with no minimum height or diameter criteria.

Retention

The deliberate holding and protecting of existing trees, shrubs or plants on the site.

Root collar or root flares

An encircling structure of swollen tissue or a marked color change (from the tree bark) located at the highest part of the root system joining into the trunk of a tree at or slightly below the surrounding soil line.

Root protection zone

The root protection zone shall be an area defined by an average radius extending outward from the trunk of the tree a distance of one (1) linear foot for each inch (DBH) of the subject tree. Root Protection Zones for trees in a cluster may be overlapping.

Significant stand of trees and/or shrubs

A group of Class I trees that exceed a minimum of three (3) individual trees and have a minimum of a thousand (1000) square feet of area associated with the stand.

Small tree

A tree species that normally does not reach a height that exceeds twenty-five (25) feet at maturity.

Streamside Management Zone (SMZ)

A Streamside Management Zone (SMZ) includes forested buffers adjacent to streams or bodies of water, including intermittent and perennial streams, river, lake, slough, pond, creek, reservoir, watershed, or wetland (ephemeral streams are excluded). The minimum width of an SMZ on each side and above the head of streams or adjacent to bodies of water shall be 50 feet from each bank. The total SMZ width includes average stream channel width plus buffer width.

Transportation standards

See § 35-506 of this Chapter.

Tree retention ratio

The percentage or amount of trees that must actually be retained on a site, rather than mitigated. See § 35-523(e) of this Chapter.

Tree permit

An authorization by the city arborist authorizing specific work as it relates to compliance with the Tree Preservation Standards or Woodland Preservation Standards.

Tree preservation plan

A plan required to be submitted for a Tree Permit which contains three (3) components; a tree survey or tree stand delineation; an inventory with calculations; and the tree protection notes, details and specifications.

Tree preservation standards

See Section 35-523 of this Chapter.

Tree save area

An area left undisturbed in its natural condition pursuant to the Woodland Preservation Standards.

Tree stand delineation

An optional alternative method for the “on-the-ground” tree survey and inventory required for the tree preservation plan using a current aerial photograph (a minimum resolution of 6 inch pixels) with an overlay of the development, an outline of the tree area(s) and the portion of that area (the tree save areas with the associated understory) that are to be preserved to meet the requirements as per the Tree Preservation standards in Section 35-523.

Woodland

An area of contiguous wooded vegetation where trees are at a density of at least one six-inch or greater caliper tree per 325 square feet of land and where the branches and leaves form a continuous canopy. For purposes of submitting a Master Site Plan, a Woodland shall include areas with a continuous canopy of trees over an area of at least twenty thousand (20,000) square feet, and may be delineated through an aerial photograph or a ground survey. A Woodland shall include both understory and protected trees.

Woodland conservation

The retention of existing Woodlands at the levels prescribed by § 35-524, where the city arborist has approved a Stand Delineation.

Woodland preservation standards

See Section 35-524 of this Chapter.

Woodland slope

The ratio of elevation change to horizontal distance, measured as a numerical ratio, percent, or in degrees. Slope is computed by dividing the vertical distance by the horizontal distance, and multiplying the ratio by one hundred. Expressed as a ratio, the first number is the horizontal distance (run) and the second is the vertical distance (rise), as 2:1. A 2:1 slope is a 50 percent slope. Expressed in degrees, the slope is the angle from the horizontal plane, with a 90 degree slope being vertical (maximum) and a 45 degree slope being a 1:1 slope. [*Reference: Texas Forest Service, Texas Forestry Best Management Practices (January 2000)*] For purposes of this Chapter, a “slope” shall include only those areas with a horizontal distance of at least fifty (50) feet.

Woodland stand delineation

The methodology for evaluating the existing vegetation on a site proposed for development, taking into account the environmental elements that shape or influence the structure or makeup of a plant community. The procedures and requirements for a Stand Delineation are defined in § 35-523 and Appendix B to this Code.

Woodlands tree save area:

Any area designated for the purpose of preserving a Significant Stand of trees, as provided in the Woodlands Preservation Standards or the area identified to be saved through the use of the Tree Stand Delineation process as an alternative to an “on-the-ground” tree survey and inventory with calculations.

35-B101 Specifications For Documents To Be Submitted

TABLE B-1							
	A	B	C	D	E	F	G
	(A) MATERIAL/INFORMATION	MASTER DEVELOPMENT PLAN	PUD PLAN	MAJOR PLAT APPLICATION	MINOR PLAT APPLICATION	DEVELOPMENT PLAT APPLICATION	SPECIFIC USE PERMIT

H. DESIGN							
(1)	Sufficient data to determine readily and reproduce accurately on the ground the location, bearing and length of every street and alley line, lot line, building line, easements required hereunder or of record in Bexar County or ascertainable by physical inspection of the property, and boundary lines of reserved or dedicated areas. All linear dimensions shall be in feet and hundredths thereof. The maximum allowable error of linear closure shall not be in excess of 1:10,000. In closed traverses, the sum of the measured angles shall vary with the theoretical sum by a difference not greater than an average of seven and one-half (7.5) seconds per angle, or the sum of the total shall not differ from the theoretical sum by more than ninety (90) seconds, whichever is smaller. Said information shall be provided on tracing cloth or reproducible mylar and on a diskette in ArcInfo or ArcView software, or a computer file with a “.dfx” format which is translatable to ArcView.			*	*		
(2)	Location of property lines, existing easements, burial grounds, railroad rights-of-way, watercourses; location, width, and names of all existing or platted streets or other public ways within or immediately adjacent to the tract; names of adjacent property owners or subdivision name when adjacent property is a platted subdivision from the latest certified assessment rolls	*		*	*		
(3)	Final location, arrangement and dimensions of all proposed and existing lots.			*	*		
(4)	Lots numbered as approved by the City.		*	*	*		
(5)	Layout shall show where Lot setbacks as required .		*	*	*		*
(6)	Off-street parking and loading areas and structures, including the number of spaces; dimensions of spaces and aisles; and landscaping for parking areas.		*				*
(7)	Location, sizes, elevations, and slopes of existing sewers, water mains, culverts, and other underground structures within the tract and immediately adjacent thereto; existing permanent building and utility poles on or immediately adjacent to the site and utility rights-of-way, as part of a request for LOC			*	*		

TABLE B-1							
	A	B	C	D	E	F	G
	(A) MATERIAL/INFORMATION	MASTER DEVELOPMENT PLAN	PUD PLAN	MAJOR PLAT APPLICATION	MINOR PLAT APPLICATION	DEVELOPMENT PLAT APPLICATION	SPECIFIC USE PERMIT
(8)	Preliminary proposals for connection with existing water supply and sanitary sewage systems, or alternative means of providing water supply and sanitary waste treatment and disposal; preliminary provisions for collecting and discharging surface water drainage, as part of a request for LOC			*	*		
(9)	All roadway locations and dimensions, their names, numbers, and rights-of-way with profiles and cross sections of all proposed streets showing proposed cuts and fills, as part of a request for LOC.			*	*		
(10)	Location and size of existing water and sewer mains together with intended water sources and sewage disposal sites, as part of a request for LOC			*	*		
(11)	Location of existing springs or public water supply, as part of a request for LOC			*	*		
(12)	Location of proposed water and sewer lines, as part of a request for LOC.			*	*		
(13)	Location of proposed fire hydrants, as part of a request for LOC.		*	*	*		
(14)	A tree preservation plan (section 35-B123) Note: For single family dwellings, developers and builders may elect to preserve trees at the platting or permitting stage. Ordinance #97602 5-8-03 Subsection 35-523(e)(1).			*	*		
(15)	The location, dimensions and type of all walls, fences (other than fences on private residential lots) and landscaping.						*
(16)	Tree Stand Delineation (section 35-B125 General)	*					
(17)	Location and size in acres of school sites, as applicable.	*	*	*	*		
(18)	The exterior boundaries as indicated from deeds or other instruments of the development area giving lengths and bearings of the boundary lines. If the proposed development is bounded by a watercourse, a closing meander traverse of that boundary shall be made and shown on the site plan. Where curving boundaries are used, sufficient data to establish the boundary on the ground shall be given; including the curve's radius, central angle, and arc length.	*	*	*	*	*	
(19)	A stormwater management plan (section 35-B119)	*	*	*	*	*	*
(20)	Street, alley and cross walkway plans (section 35-B120)			*			

35-B123 *Tree Permit-Tree Preservation Plan Option*

(a) *Number of Copies*

The Applicant shall submit a Tree Preservation/Affidavit application with three (3) sets of tree preservation plans, a survey showing the location of all Significant, Heritage, or mitigation trees, including clusters, an inventory with calculations, and tree protection notes as provided herein.

(b) *Format*

The tree survey shall be drawn to scale with sufficient clarity to indicate the location and extent of the work proposed, and show in detail that it conforms to the requirements of this section. The survey shall be submitted on a Tree Preservation (TP) sheet(s) and shall relate to the civil drawings. A survey that cannot be drawn on a single sheet shall be drawn with appropriate match lines on two (2) or more sheets. A TP survey sheet may also include the tree inventory, calculations, and the tree protection notes at the discretion of the applicant. It shall be the responsibility of the permit holder to maintain a copy of the tree permit, the data and drawings required by this section, and the conditions of approval imposed by the city arborist readily available at the site at all times during which the authorized work is in progress. All tree preservation plans shall be submitted in the form required by the city arborist and shall contain and provide tree protection notes, details and specifications clearly indicating the trees which will remain and the trees which are to be removed.

(c) *Contents*

- (1) The Tree Preservation Plan** contains three components: a tree survey, the tree inventory, and the tree protection notes.

A. Multifamily residential, commercial and other development:

1. **The Tree Survey.** The Tree Survey shall, at a minimum, provide the following:
 - a. A vicinity map, project name, street address (or plat #, parcel #, or legal description), date, scale, north arrow and the names, addresses and telephone numbers of the person(s) preparing the plan;
 - b. The location, species and size in diameter inches of each Significant, Heritage, (see Section 35-523(d)) or mitigation trees, and any cluster or natural areas used to meet the requirements within the project area. Each tree is to be given a unique number which cross references or identifies the trees in the inventory;

- c. The location of property lines, existing site grades and proposed site grades, location and width of existing and proposed streets and alleys, utility easements, driveways, parkways, and sidewalks on or adjacent to the project;
- d. Approximate centerlines of existing watercourses and the location of the 100-year floodplain; approximate location of significant drainage features and any major topographical features;
- e. The location and dimensions of all staging areas and/or designated parking areas for the parking and maintenance of all vehicles, trailers, construction equipment, and related items as well as stockpile areas for the storage of construction supplies and materials; and
- f. The location of all improvements and their proximity to Significant or Heritage trees.

2. The Tree Inventory. A tree inventory shall include:

- a. The diameter inches of and species of each Significant, Heritage, (see Section 35-523(d)) or mitigation trees and optional cluster trees; tree number, species, DBH, location, and disposition of each tree;
- b. Reasons for removal of any such trees;
- c. Calculations indicating total diameter inches, inches preserved, and percent preservation, with a delineation of Significant and Heritage trees; and
- d. The tree designation (Significant or Heritage tree) and desirability percentage.

3. The Tree Protection Notes. The Tree Protection Notes shall include written information containing acceptable activities on the site and within the root protection zone of each tree, cluster or natural area to be preserved to meet the requirements for this standard, including:

- a. Details and graphics illustrating the protective measures such as fencing and alternative construction methods; and
- b. Specifications denoting the criteria for methods and materials used for tree protection.

B. Residential:

1. The Tree Survey. For lots located inside the city limits, the developer or property owner must provide a tree survey of the area contained in the front and rear yard setbacks, as established in the Lot Layout Standards of this Code, of the lots that are to be

made ready for construction. For such lots located in a Planned Unit Development, the developer or property owner must provide a tree survey of that portion of the front and rear yards within twenty (20) feet of the front and rear property lines respectively. For lots that are to be made ready for construction located outside the city limits, but in the ETJ and/or a Planned Unit Development, the developer or property owner must provide a tree survey of that portion of the front and rear yards within twenty (20) feet of the front and rear property lines respectively. The Tree Survey shall, at a minimum, provide the following:

- a. A vicinity map, project name, street address (or plat #, parcel #, or legal description), date, scale, north arrow and the names, addresses and telephone numbers of the person(s) preparing the plan;
 - b. A current aerial photograph (a minimum resolution of 6 inch pixels) with an overlay of the development, an outline of the tree area(s) and the tree area(s) and understory that are to be preserved to meet the requirement standards;
 - c. The location of property lines, existing grades and proposed grades, location and width of existing and proposed streets and alleys, utility easements, driveways, parkways, and sidewalks on or adjacent to the project;
 - d. Approximate centerlines of existing watercourses and the location of the 100-year floodplain; approximate location of significant drainage features and any major topographical features;
 - e. The location and dimensions of all staging areas and/or designated parking areas for the parking and maintenance of all vehicles, trailers, construction equipment, and related items as well as stockpile areas for the storage of construction supplies and materials;
 - f. The location of all improvements and their proximity to Significant or Heritage trees; and
 - g. Location, size, and species of all Heritage trees.
2. **The Tree Inventory.** A tree inventory shall include:
- a. The calculations for the preservation ratio of trees to be preserved; and
 - b. Reasons for removal of any such trees.
3. **The Tree Protection Notes.** The Tree Protection Notes shall include written information containing acceptable activities on the site and within the root protection zone of each tree, cluster or natural area to be preserved to meet the requirements for this

standard, including details and graphics illustrating the protective measures such as alternative construction methods.

35-B124 *Tree Permit-Tree Affidavit Option*

In lieu of a Tree Permit, a notarized Tree Affidavit with fees and required information may be submitted verifying that no Significant or Heritage tree required to be counted for calculating minimum tree preservation requirements will be damaged or removed as a result of the application or receipt of the approval requested.

(a) *Number of Copies*

The Applicant shall submit a Tree Preservation/Affidavit application with one (1) copy at the platting stage and three (3) sets at the building permit stage.

(b) *Format*

- (1) A vicinity map, project name, street address (or plat #, parcel #, or legal description), date, scale, north arrow and the names, addresses and telephone numbers of the person(s) preparing the plan,
- (2) Any aerial photograph that cannot be plotted on a single sheet shall be plotted with appropriate match lines on two (2) or more sheets. A Tree Preservation survey sheet may also include the tree area calculations and the tree protection notes at the discretion of the applicant. It is the applicant's responsibility to insure that all parts of the tree preservation plan are transferred to each appropriate person concerned with the development project.

(c) *Contents*

- (1) A current aerial photograph (a minimum resolution of 6 inch pixels) with an overlay of the development, an outline of the tree area(s) and the tree area(s) and understory that are to be preserved to meet the requirement standards; and
- (2) The location of property lines, existing grades and proposed grades, location and widths of existing and proposed streets and alleys, utility easements, driveways, parkways, and sidewalks on or adjacent to the project; and
- (3) Basic descriptive information regarding the vegetation type(s) that are within the existing tree area(s).

35-B125 *Tree Permit-Tree Stand Delineation Plan Option*

As an alternative option to the Tree Preservation Plan, a Tree Stand Delineation Plan may be submitted. The Tree Stand Delineation Plan that is required with the Master Development Plan shall include at a minimum a current aerial photograph with a minimum resolution of 6 inch pixels with a scale of one (1) inch equals four-hundred (400) feet (1"= 400'), and additional information contained herein.

(a) *Number of Copies*

The Applicant shall submit a Tree Preservation/Affidavit application with three (3) sets of the Tree Stand Delineation Plan.

(b) *Format*

- (1) A vicinity map, project name, street address (or plat #, parcel #, or legal description), date, scale, north arrow and the names, addresses and telephone numbers of the person(s) preparing the plan;
- (2) A Tree Preservation Plan sheet with a current aerial photograph (a minimum resolution of 6 inch pixels) with an overlay of the development, an outline of the tree area(s) and the tree area(s) and understory that are to be preserved to meet the requirement standards; and
- (3) Any aerial photograph that cannot be plotted on a single sheet shall be plotted with appropriate match lines on two (2) or more sheets. A Tree Preservation survey sheet may also include the tree area calculations and the tree protection notes at the discretion of the applicant. It is the applicant's responsibility to insure that all parts of the tree preservation plan are transferred to each appropriate person concerned with the development project.

(c) *Contents*

- (1) The location of property lines, existing grades and proposed grades, location and widths of existing and proposed streets and alleys, utility easements, driveways, parkways, and sidewalks on or adjacent to the project;
- (2) Basic descriptive information regarding the vegetation type(s) that are within the existing tree area(s) and within those areas that are to be preserved, and
- (3) Tree protection notes, details and specifications that include the written and graphic information of acceptable and non-acceptable activities on the site and within the tree save areas to be preserved to meet the requirements for this standard.

35-B126 *Tree Permit-Woodlands Preservation Plan Option*

(a) *Number of Copies*

The Applicant shall submit a Tree Preservation/Affidavit application with three (3) sets of plans, surveys and/or drawings as provided herein.

(b) *Format*

A Woodlands Stand Delineation shall be prepared in accordance with 35-478 by a landscape architect or certified arborist. The information provided herein may be derived from aerial photographs, topographic plans, or on-site surveys at the discretion of the applicant. The information shall be presented at a scale of one (1) inch equals four-hundred (400) feet (1"= 400').

(c) *Contents*

The Woodlands Stand Delineation shall contain the following components:

- (1) A topographic or aerial map delineating intermittent and perennial streams, and steep slopes; and
- (2) The boundaries and a description of the species associations based upon the "Checklist of the Vascular Plants of Texas", version 2001, published by Texas A&M University, including species composition, stocking density, diameter distribution (if available), age class, and condition at the stand level; and
- (3) A computation of the amount of land covered by tree canopy, in acres; and
- (4) An estimate of the number of trees per acre; and
- (5) A map delineating Critical Wildlife Habitat; and
- (6) A map delineating Streamside Management Zones; and
- (7) Forest stand maps indicating species, location, and size of trees and showing dominant and co-dominant forest types.
- (8) A map of the site drawn at the same scale as the grading or subdivision plan;
- (9) A table listing the net area in square feet, the square foot area of Woodlands Conservation required for the site, and the square foot area of Woodlands Conservation provided by the applicant on-site and off-site, if applicable;
- (10) A clear graphic indication of the Woodlands Conservation provided on the site showing areas where both retention of existing Woodland, by any and all methods, is planned;
- (11) An anticipated construction timetable, including the sequence for tree conservation procedures;
- (12) A reforestation plan with a timetable and description of needed site and soil preparation, species, size, and spacing to be utilized;
- (13) Locations and types of protective devices to be used during construction activities to protect areas of Woodland designated for conservation;

- (14) Limits of disturbance delineated;
- (15) Stockpile areas delineated; and
- (16) A binding 2-year management agreement that details how the areas designated for forestation or reforestation will be maintained to ensure protection or satisfactory establishment including:
 - a. Watering; and
 - b. Reinforcement planting provisions if survival falls below required standards.

35-B127 *Tree Permit-Public Project Preservation Plan*

(a) *Number of Copies*

A Tree Preservation Plan shall consist of an aerial photograph (where applicable) and one (1) set of construction documents with the contents prescribed herein.

(b) *Format*

The aerial photograph and the construction documents shall be at a scale with sufficient clarity to indicate the location, nature and extent of the work proposed, and show in detail that it conforms to the requirements of this section. The plan shall be submitted on sheets of a size not to exceed thirty by forty-two inches (30" X 42"). A plan which cannot be drawn in its entirety on a single sheet shall be drawn with appropriate match lines on two (2) or more sheets with one (1) sheet illustrating the scope of the entire project.

(c) *Contents*

The Tree Preservation Plan shall include the following information:

- (1) A current aerial photographs (where applicable) at a minimum of six (6) inch pixel with an overlay of the project alignment and all easements;
- (2) A vicinity map, existing grades and proposed grades, location of project lines, and dimensions of the project rights-of-ways and/or all easements, and delineation of the proposed limit of clearance;
- (3) Project name, street address, legal description, date, scale, north arrow and the names, addresses and telephone numbers of the person(s) preparing the plan;
- (4) The location, species and size in diameter inches of each Significant or Heritage trees within the project area as defined in Section 35-523(d). Each tree is to be given a unique number which cross references or identifies the trees in the inventory;
- (5) Location of any mitigation trees to be planted within the project area;
- (6) Approximate centerlines of existing watercourses and the location of the 100-year floodplain; approximate location of significant drainage features and any major topographical features;
- (7) The location and width of existing and proposed streets and alleys, utility easements, driveways, parkways, and sidewalks on or adjacent to the project;

(8) A summary table indicating the total number, diameter inches, and species of protected trees to be removed within the project area;

(9) Description of tree and tree clusters that may be impacted by any construction activity or fifteen (15) feet from any proposed improvements;

(10) Location and dimensions of all staging areas and/or designated parking areas for the parking and maintenance of all vehicles, trailers, construction equipment, and related items as well as stockpile areas for the storage of construction supplies and materials;

(11) For applications that require boring of utilities, show bore pit areas so that the minimum distance of the bore is outside the canopy of the trees or tree clusters and that the minimum depth of the bore shall be twenty-four (24) inches or greater; and

(12) Tree and understory preservation notes, specifications, and details.

35-C110 *Tree Preservation and Woodland Preservation Fees*

The following fees are established for purposes of issuing permits or taking related actions for purposes of the Tree Preservation Standards and the Woodland Preservation Standards. All fees shall be paid prior to issuance or certification of the action taken, and shall be earmarked as provided in § 35-C101, above.

Basic Fees

	Residential	Commercial
Tree Permit	\$35/Lot \$2,000 Maximum	\$75/Acre
Affidavit Option 1 No Protected Trees	\$35/Lot \$1,000 Maximum	\$75/Acre \$2,000 Maximum
Woodland Stand Permit	\$75/Acre \$2,000 Maximum	\$75/Acre \$2,000 Maximum
Plan Review Fee	\$75	\$75

Miscellaneous Fees

Tree Certification Credit	\$100/project & \$1/inch (Tree Mitigation Fund)
Tree Mitigation	\$100/inch (Tree Mitigation Fund)
Tree Maintenance License	\$150/Three Years (Four Hours Continuing Education)

Appendix E: San Antonio Recommended Plant List-All Suited to Xeriscape Planting Methods

TREES				
Small: Fifteen (15) to twenty-five (25) Feet; Medium: Twenty (25) to Forty (40) Feet; Large: Forty (40) Feet and Higher (60'+)				
Common Name	Scientific Name	Height	Remarks	Shade Area
Anacacho, Orchid tree	Bauhania congesta	S-M	Semi-Evergreen, tree-shrub, white flower clusters	275
Anaqua*, Sandpaper tree	Ehretia anacua	M-L	Evergreen broadleaf; white flower clusters	875
Arizona Cypress	Cupressus arizonica	M-L	Evergreen conifer; gray green foliage; pyramidal shape	875
Texas Ash, Green Ash	Fraxinus sp.	M-L	Deciduous; fast growing	875
Ashe Juniper*	Juniperus ashei	S-M	Evergreen conifer; green foliage, females fruit	275
Bald Cypress*	Taxodium distichum	L	Deciduous conifer; fine textured foliage; fall color	1200
Black Willow*	Salix nigra	M-L	Deciduous; riparian species	875
Bur Oak*	Quercus macrocarpa	L	Deciduous; large acorns and leaves, good shade tree	1200
Carolina Buckthorn	Rhamnus caroliniana	S-M	Semi-Evergreen; sun-shade, glossy leaves, reddish fruit	275
Cedar Elm*	Ulmus crassifolia	M-L	Deciduous; narrow canopy, good shade tree for R.O.Ws	875
Chinquapin Oak*	Quercus muhlenbergii	M-L	Deciduous; round-topped tree; bold foliage	875
Condalia, Brazil Tree, Bluewood Condalia*	Condalia hookeri, C. viridis	S-M	Evergreen; delicate foliage; very drought tolerant; sun-shade, good shade tree	275
Cottonwood	Populus deltoides	L+	Deciduous; large leaves, females fluffy seeds	1200
Crabapple, Texas*	Mollis texana	S-M	Deciduous, full to partial sun, spring flowering tree	275
Desert Willow*	Chilopsis linearis	S	Deciduous; pink tubular flowers; willow-like foliage, very drought tolerant	n/a
Deodar Cedar	Cedrus deodara	L	Evergreen; spreading pyramidal shape	1200
Ebony, Texas	Pithecellobium	S	Evergreen; sun; white flowers	n/a

	flexicaule			
Escarpment Black Cherry*	Prunus serotina var. eximia	M-L	Deciduous; sun to shade; fall foliage	875
Eve's Necklace*	Sophora affinis	M-L	Deciduous; sun-shade; white to pink flowers	875
Goldenball Lead Tree*	Leucaena retusa	S-M	Deciduous; delicate foliage; fragrant yellow flowers	275
Hackberry	Celtis spp.	M-L	Deciduous; prolific; wildlife favorite	875
Honey Locust	Gleditsia triacanthos	M	Deciduous; thornless varieties available	550
Huisache*	Acacia farnesiana	M	Deciduous; delicate foliage; fragrant yellow flowers	550
Kidneywood	Eysenhardtia polystachya	S	Deciduous; delicate tree-shrub; fragrant white flowers	n/a
Lacy Oak*	Quercus laceyi	M	Deciduous; sun-partial shade; hill county native, good shade tree	550
Live Oak*	Quercus virginiana	M-L	Evergreen-like; good shade tree	875
Mesquite*	Prosopis glandulosa	S-M	Deciduous; lacy spreading form	275
Mexican Buckeye	Ungnadia speciosa	S	Deciduous; pink-red spring flowers	n/a
Pecan*	Carya illinoensis	L+	Deciduous; needs lots of space; sensitive to root impact	1200
Persimmon, Texas*	Diospyros texana	S-M	Deciduous; sun-shade, smooth bark; females has black pulpy fruit	275
Plum, Mexican*	Prunus mexicana	S	Deciduous; sun to shade; white flowers, fruit	n/a
Possum Haw*	Ilex decidua	S-M	Deciduous; sun-shade; female has red fruit	275
Retama, Paloverde	Parkinsonia texana	S-M	Deciduous; fast growing, yellow flowers	275
Red Oak, Shumard	Shumard Quercus shumardii	L	Deciduous; fall color, good shade tree	1200
Red Oak, Texas	Quercus texana	M	Deciduous; fall color, good shade tree	550
Redbud, Texas, Oklahoma, Mexican*	Cercis canadensis var texana	S-M	Deciduous; sun-shade, red/pink or white flowers	275
Rusty Blackhaw	Viburnum rufidulum	S	Deciduous; fall color, white flower clusters	n/a
Silk-tassle*	Garrya ovata	S	Evergreen; sun-shade	n/a
Spiny Hackberry	Celtis pallida	S	Evergreen; greenish white flowers, yellow orange fruit	n/a
Sycamore,	Platanus mexicana	L+	Deciduous; large leaves, good	1200

Mexican			shade tree	
Sycamore, Texas*	Platanus glabrata	L+	Deciduous; large leaves, good shade tree	1200
Texas Mountain Laurel*	Sophora secundiflora	S	Evergreen, part shade to full sun; fragrant purple flowers	n/a
Texas Pistache	Pistacia texana	S	Semi-Evergreen; full sun to part-shade; red fruit	n/a
Wafer Ash, Hop tree	Ptelea trifoliata	S	Semi-Evergreen; sun-shade; light green foliage	n/a
Western Soapberry	Sapindus drummondii	M-L	Deciduous; full to partial sun; good shade tree, cluster large yellow flowers	875
Wild Olive	Cordia boissieri	S-M	Semi-Evergreen; large white flowers, hardy to ~14°F	275
Vitex, Chaste Tree, False Hemp Tree, Lavender Tree*	Vitex agnus-castus	S-M	Deciduous; purple, pink, or white flower spikes	275
Yaupon Holly*	Ilex vomitoria	S-M	Evergreen; sun-shade; female has red fruit	275

SHRUBS			
Large (Not Taller than Twenty-Five (25) Feet at Maturity)			
Common Name	Scientific Name	Height	Remarks
Bay	Laurel noblis	6'-12'	Evergreen, sun-part sun, fragrant leaves
Buckeye	Aesculus pavia	6'-12'	Deciduous (even in dry weather), shade, yellow or red flowers
Evergreen Sumac*	Rhus virens	4'-15'	Evergreen, sun-shade, red fruit
Flameleaf Sumac*	Rhus lanceolata	5'-15'	Sun-partial shade; deciduous; red berries in fall; fall color
Texas Mountain Laurel*	Sophora secundiflora	10'-25'	Tree-like evergreen shrub; purple spring flowers; sun, part shade
Texas Pistache	Pistacia texana	6'-12'	Semi-evergreen, sun

SHRUBS			
Medium (Five (5) to Ten (10) Feet at Maturity)			
Glossy Abelia	Abelia grandiflora	5'-9'	Bronze evergreen foliage; white or pink; sun, part shade
Agarita*	Mahonia trifoliata	5'-9'	Holly-like evergreen foliage; yellow spring; red edible berries; sun-shade
Cenizo, Texas Sage*	Leucophyllum sp.	5'-9'	Dusty gray evergreen foliage; sun; blooms throughout summer; purple - pink flowers; several new varieties: including compact

Elbow Bush	Forestiera pubescens	3'-6'	Deciduous; sun-shade, small white flowers, black fruit
Frangrant Sumac	Rhus aromatica	3'-6'	Deciduous; part shade, fall color
Hogplum	Colubrina texensis	4'-6'	Part shade, full sun; fragrant blooms
Juniper	Juniperus sp.	5'-10'	Tough evergreen; many varieties; sun, part shade
Mutablis Rose, Butterfly Rose, Old Blush	Rosa chinensis x (Mutablis)	3'-5'	Sun, large single petal flowers change color as ages
Pomegranate	Punica granatum	5'-10'	Sun, upright shrub; orange blooms; edible fruit; dwarf variety
Primrose Jasmine	Jasminum mesnyi	5'-8'	Evergreen, sun-shade, sprawling, yellow flowers
Southern Wax Myrtle	Myrica cerifera	3'-8'	Evergreen, sun-shade, compact variety, available
White Brush	Aloysia gratissima	4'-8'	Delicate; fragrant white flower; suckers, can be used as a hedge

SHRUBS			
Small (Not Taller than Five (5) Feet at Maturity)			
American Beautyberry	Callicarpa americana	3'-4'	Deciduous, fruit in fall and winter, purple; part shade
Agave, century plant	Agave americana	3'-5'	Sun, rosette, spine-tipped leaves
Barbados Cherry	Malpighia glabra	2'-4'	Evergreen, pink flowers, red fruit, sun-shade
Barberry	Berberis thunbergii atropurpurea	3'-5'	Evergreen; sun-part shade, color foliage
Grayleaf Cotoneaster	Cotoneaster glaucophylla	3'-5'	Sprawling evergreen shrub; dusty gray foliage; sun, part shade
Juniper	Juniperus sp.	2'-5'	Evergreen shrubs; many varieties available; sun
Mexican Butterfly Weed	Asclepias tuberosa	3'	Broad clusters of orange flowers
Mexican Oregano	Poliomenantha longiflora	2'-3'	Evergreen, sun, pink flowers
Rock rose	Pavonia lasiopetala	2'-4'	Deciduous; sub-shrub, pink or purple flowers
Rosemary, Upright	Rosmarinus officinalis	3'-5'	Evergreen, sun-part shade; blue flowers
Red Yucca	Hesperaloe parviflora	3'-4'	Sun, rosette, narrow leaves
Yucca	Hesperaloe parviflora	3'-4'	Sun, rosette, narrow leaves, white flowers

VINES

Common Name	Scientific Name	Height	Remarks
Autumn Clematis	Clematis sp.	n/a	Evergreen; fragrant white fall; sun, part shade
Carolina Jessamine	Gelsemium sempervirens	n/a	Evergreen; yellow spring; sun, part shade
Confederate Jasmine	Trachelospermum jasminoides	n/a	Evergreen; fragrant white spring; sun, part shade
Coral honeysuckle	Lonicera sempervirens	n/a	Almost Evergreen; red blooms; part shade to full sun
Coral vine, Queen's wreath	Antigonon leptopus	n/a	Pink flowers in late summer and fall; sun
Fig Ivy	Ficus pumila (repens)	n/a	Evergreen; clings to walls; sun, part shade
Lady Banksia	Rosa banksia	n/a	Evergreen, flowers in yellow or white; sun-part shade
Scarlet Clematis	Clematis texana	n/a	Shade to part shade, spring and summer blooms; red, rust, maroon, or rose-pink
Silverlace Vine	Polygonum ambertii	n/a	Fluffy masses of white; sun, part shade
Virginia Creeper	Parthenocissus quinquefolia	n/a	Deciduous

GROUNDCOVER			
Common Name	Scientific Name	Height	Remarks
Asiatic Jasmine	Trachelospermum asiaticum	n/a	Evergreen; green or variegated foliage; sun, part shade, no flowers
Columbine	Aquilegia spp.	n/a	Evergreen, gray/green foliage, yellow flowers
Confederate Jasmine	Trachelospermum jasminoides	n/a	Evergreen; fragrant, white spring flowers; sun, part shade
Frogfruit	Phyla incisa	n/a	Semi-evergreen, creeper, sun-part sun, white flowers
Lantana purple, gold	Lantana sp.	n/a	Deciduous, sun, purple, white or yellow flowers
Pigeonberry	Rivina humilis	1'-2'	Semi-evergreen shrub
Rosemary, prostrate	Rosmarinus officinalis	1'-2'	Evergreen sub-shrub, sun to part sun, blue flowers
Katie' Ruellia	Ruellia spp.	1'-2'	Evergreen, sun-shade, rosette with purple or pink flowers
Santolina	Santolina sp.	1'-2'	Species with green or silver foliage; sun
Trailing Juniper	Juniperus sp.	n/a	Several varieties available; not suitable for wet, humid areas; sun
Verbena	Verbena spp.	n/a	Evergreen, pink, purple, white, red

			flowers
Yarrow	Achillea millefolium	n/a	Gray or green gray leaves; many varieties

GRASSES, TURF			
Common Name	Scientific Name	Height	Remarks
Bermuda grass	Cynodon dactylon	n/a	Excellent drought tolerance; poor shade tolerance; sun
Buffalograss*	Buchloe dactyloides	4"-6"	Excellent drought tolerance; poor shade tolerance; sun
Prarie mix	n/a	8"-12"	Mixture of Texas native Bunch, can add wildflowers
St. Augustine grass	Stenotaphrum secundatum	n/a	Produces dense turf; shade areas only; poor drought tolerance; sodded

PERENNIALS			
Common Name	Scientific Name	Height	Remarks
Butterfly Weed	Asclepias spp.	3'	Semi-hardy perennial, orange flowers
Cigar Plant	Cuphea micropetala	3'-4'	Red, yellow; summer to fall flowers; sun
Fall Aster	Aster spp.	2'-3'	Semi-evergreen, sun-part sun, blue or white
Firebush	Hamelia patens	3'-5'	Reddish orange; summer to fall flowers; sun
Hinckley's Columbine	Aquilegia hinckleyana	18"	Yellow; spring flowers; shade
Indigo Spires	Sage Salvia spp.	2'-3'	Semi-evergreen, sun, dark blue flowers
Lantana	Lantana sp.	1'-2'	Many colors; spring to fall flowers; sun
Mealy Cup Sage*	Salvia farinacea	3'	Sun, part shade; blue, white, purple flowers
Mexican Oregano	Poliomentha longiflora	1'-3'	Evergreen; pink; summer flowers; sun
Mexican Petunia	Ruellia sp.	1'-3'	Evergreen; tolerates shade; purple, pink, white flowers, suckers
Mexican Sage	Salvia leucantha	3'-4'	Semi-evergreen; blue; spring to fall flowers; sun
Mist flower,	Boneset Eupatorium spp.	2'-4'	Hardy perennial, white to blue flowers
Muhly Grass*	Muehlenbergia lindheimeri	3'	Evergreen; hardy perennial; sun
Pigeonberry	Rivina humilis	1'-2'	Semi-evergreen shrub
Purple Cone Flower	Echinacea purpurea	2'	Hardy perennial, rosette with pink or

			white flowers
Perennial verbena*	Verbena sp.	6"-1'	Many colors; spring to fall flowers; sun
Rock rose	Pavonia lasiopetala	2'-4'	Deciduous; sub-shrub, pink or purple flowers
Rosemary	Rosmarinus officinalis	1'-4'	Sun, part shade; blue flowers
Shrimp Plant	Justicia spp.	1'-2'	Hardy perennial, sun-part sun; orange, red flowers
Skullcap	Scutellaria frutescens	1'	Evergreen sub-shrub; pink or purple flowers
Texas Betony	Stachys coccinea	1'-2'	Evergreen, gray-green; red tubular flowers
Tropical Sage	Salvia coccinea	2'-3'	Evergreen, red, pink blooms; part shade to full sun
Turk's Cap	Malvaviscus drummondii	1'-4'	Shade; red flowers
White Rain Lily*	Zephyranthes candida	1'	Ephemeral; sun, part shade; white

PALMS			
Common Name	Scientific Name	Height	Remarks
California Fan Palm	Washingtonia filifera	15'-60'	Tree-like palm; sun. Hybrids with W. robusta can be taller
Dwarf Palmetto*	Sabal minor	3'-7'	Trunkless, bushy palm; sun, part shade
Texas Palmetto*	Sabal texana	10'-25'	Tall, native Texas palm; sun
Windmill Palm	Trachycarpus fortunei	10'-35'	Tree-like; sun; not considered a canopy; good foundation plant
Mexican Blue Palm	Brahea armata	12'-25'	Fan palm with blue-green leaves; sun
Butia or Jelly Palm	Butia capitata	10'-15'	Feather palm with blue-green leaves; sun
European Fan Palm	Chamaerops humilis	6'-12'	Tough, clumping fan palm with spiny petioles
Mazari Palm	Nannorrhops ritchiana	6'-25'	Slow growing fan palm with blue-green leaves
Canary Island Date Palm	Phoenix canariensis	40'	Beautiful feather palm; may be damaged in very cold winters
Needle Palm	Rhapidophyllum hystrix	5'-6'	Clumping shrublike palm foliage for sun to part shade
Silver Saw Palmetto	Sorenoa repens	3'-6'	Clumping low palm in both blue and green forms

ORNAMENTAL GRASSES

Common Name	Scientific Name	Height	Remarks
Big Bluestem	<i>Andropogon gerardi</i>	1'-2'	Sun, clump grass
Eastern Gamagrass	<i>Tripsacum dactyloides</i>	2'-3'	Dense, part shade, full sun
Inland Seaoats	<i>Chasmanthium latifolium</i>	2'-4'	Shade, dappled shade, part shade
Little Bluestem *	<i>Schizachyrium scoparium</i>	1'-2'	Evergreen, part shade, full sun
Muhly Grass*	<i>Muehlenbergia lindheimeri</i>	2'-5'	Evergreen, part shade, full sun
Purple Fountain Grass	<i>Pennisetum setaceum</i> 'Rubrum'	2'-3'	Delicate color accent; full sun
Sideoats Grama*	<i>Bouteloua curtipendula</i>	2'-3'	Dappled shade, part shade, full sun
Switchgrass	<i>Panicum virgatum</i>	3'	Part shade, full sun